# **Refine Search**

## Search Results -

Terms	Documents
L7 NOT L8	34

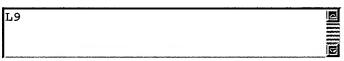
US Pre-Grant Publication Full-Text Database

US Patents Full-Text Database

Database:

US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins

Search:











## **Search History**

DATE: Wednesday, March 09, 2005 Printable Copy Create Case

Set Name		Hit Count	
side by side			result set
DB=U	SPT; PLUR=NO; OP=OR		
<u>L9</u>	L7 NOT 18	34	<u>L9</u>
<u>L8</u>	L7 AND 16	8	<u>L8</u>
<u>L7</u>	L2 AND rules.ab.	42	<u>L7</u>
<u>L6</u>	L2 AND rules.ti.	8	<u>L6</u>
<u>L5</u>	L4 aND quadrant	13	<u>L5</u>
<u>L4</u>	L2 AND condition	166	<u>L4</u>
<u>L3</u>	L2 AND IF	0	<u>L3</u>
<u>L2</u>	L1 AND (business ADJ rules)	328	<u>L2</u>
<u>L1</u>	rules AND ((object-oriented) or (object ADJ oriented))	3814	L1

END OF SEARCH HISTORY

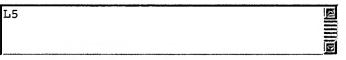
# **Refine Search**

## Search Results -

Terms	Documents
L4 aND quadrant	13

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:











## **Search History**

DATE: Wednesday, March 09, 2005 Printable Copy Create Case

Set Nam	<u>ne Query</u> de	Hit Count	Set Name result set
DB = U	JSPT; PLUR=NO; OP=OR		
<u>L5</u>	L4 aND quadrant	13	<u>L5</u>
<u>L4</u>	L2 AND condition	166	<u>L4</u>
<u>L3</u>	L2 AND IF	0	<u>L3</u>
<u>L2</u>	L1 AND (business ADJ rules)	328	<u>L2</u>
<u>L1</u>	rules AND ((object-oriented) or (object ADJ oriented))	3814	<u>L1</u>

**END OF SEARCH HISTORY** 

Record List Display Page 1 of 10

## **Hit List**



Search Results - Record(s) 1 through 13 of 13 returned.

☐ 1. Document ID: US 6754181 B1

L5: Entry 1 of 13

File: USPT

Jun 22, 2004

US-PAT-NO: 6754181

DOCUMENT-IDENTIFIER: US 6754181 B1

TITLE: System and method for a directory service supporting a hybrid communication

system architecture

DATE-ISSUED: June 22, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Elliott; Isaac K. Colorado Springs CO Krishnawswamy; Sridhar Cedar Rapid IA

US-CL-CURRENT: 370/252; 370/352, 370/356

#### ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. A directory service that supports a hybrid communication system architecture is provided for routing traffic over the hybrid network and the internet.

12 Claims, 191 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 133

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De

☐ 2. Document ID: US 6731625 B1

L5: Entry 2 of 13

File: USPT

May 4, 2004

US-PAT-NO: 6731625

Record List Display Page 2 of 10

DOCUMENT-IDENTIFIER: US 6731625 B1

TITLE: System, method and article of manufacture for a call back architecture in a hybrid network with support for internet telephony

DATE-ISSUED: May 4, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Eastep; Guido M. McKenney TX
Litzenberger; Paul Wilie TX
Orebaugh; Shannon R. Herndon VA

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.01, 379/90.01, 379/93.07

#### ABSTRACT:

A callback system is created utilizing a hybrid telecommunication system including a switched communication network and a packet transmission network. A call parameter database is stored in a memory. A call is received on the system. The call parameter database is accessed to determine at least one call parameter. The call is routed over the switched communication network and the packet transmission network based on the at least one call parameter. A plurality of service engines is provided, each configured to execute desired service logic utilizing expert system.

39 Claims, 188 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 187

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De

☐ 3. Document ID: US 6718535 B1

L5: Entry 3 of 13

File: USPT

Apr 6, 2004

US-PAT-NO: 6718535

DOCUMENT-IDENTIFIER: US 6718535 B1

\*\* See image for Certificate of Correction \*\*

TITLE: System, method and article of manufacture for an activity framework design in an e-commerce based environment

DATE-ISSUED: April 6, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Underwood; Roy Aaron Long Grove IL

US-CL-CURRENT: <u>717/101</u>; <u>717/120</u>

ABSTRACT:

Record List Display Page 3 of 10

A system and method are provided for providing an activity framework. First, a plurality of sub-activities are created which each include sub-activity logic adapted to generate an output based on an input received from a user upon execution. Second, a plurality of activities are defined which each execute the sub-activities in a unique manner upon being selected for accomplishing a goal associated with the activity. Selection of one of the activities is allowed by receiving user indicia. An interface is depicted for allowing receipt of the input and display of the output during execution of the sub-activities associated with the selected activity.

24 Claims, 179 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 111

Full Title Citation Front Review Classification Date Reference **Sequences Attachments** Claims KWIC Draw. De

☐ 4. Document ID: US 6704873 B1

L5: Entry 4 of 13 File: USPT

Mar 9, 2004

US-PAT-NO: 6704873

DOCUMENT-IDENTIFIER: US 6704873 B1

TITLE: Secure gateway interconnection in an e-commerce based environment

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Underwood; Roy Aaron Long Grove IL

US-CL-CURRENT: 713/201; 709/223, 709/249

### ABSTRACT:

A system and method of providing a global internetworking gateway architecture in an e-commerce environment are provided. A plurality of gateways each situated in a distinct geographic location are coupled to an internet. A wide area network, separate from the internet, is coupled to each of the gateways for providing communication between the wide area network and the internet. Coupled to the wide area network is a central database for providing a central storage for data used in e-commerce carried out over the internet. In one embodiment, at least one of the gateways includes at least one screening router coupled to the internet service provider, at least one firewall connected to the screening router, and a choker router coupled between the wide area network and the firewall.

16 Claims, 179 Drawing figures Exemplary Claim Number: 5 Number of Drawing Sheets: 111

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw. De

Record List Display Page 4 of 10

☐ 5. Document ID: US 6633878 B1

L5: Entry 5 of 13

File: USPT

Oct 14, 2003

US-PAT-NO: 6633878

DOCUMENT-IDENTIFIER: US 6633878 B1

TITLE: Initializing an ecommerce database framework

DATE-ISSUED: October 14, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Underwood; Roy Aaron Long Grove IL

US-CL-CURRENT: 707/100; 707/1, 707/102, 707/205

#### ABSTRACT:

A system, method and article of manufacture are provided for initializing a database used with an issue tracker. The issue tracker receives information relating to a plurality of issues from a plurality of users, displays the information relating to the issues, and allows the browsing of the information relating to each of the issues. To initialize the database, the information relating to the issues is stored in a first database. A second database is also provided that stores tables including: a plurality of user interfaces; and/or application logic for accessing the information in the first database. The tables of the second database are reconfigured upon migrating the first database from a first folder to a second folder.

15 Claims, 179 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 111

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawt De

☐ 6. Document ID: US 6609128 B1

L5: Entry 6 of 13

File: USPT

Aug 19, 2003

US-PAT-NO: 6609128

DOCUMENT-IDENTIFIER: US 6609128 B1

TITLE: Codes table framework design in an E-commerce architecture

DATE-ISSUED: August 19, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Underwood; Roy Aaron Long Grove IL

Record List Display Page 5 of 10

US-CL-CURRENT: 707/10; 707/200

#### ABSTRACT:

A system, method and article of manufacture are provided for maintaining application consistency. First, a table of codes and associated text phrases are provided. Such table of codes is stored on a local storage medium within an ecommerce computer architecture. Next, the table of codes is accessed on the local storage medium within the e-commerce computer architecture. One of the text phrases is subsequently retrieved by selecting a corresponding one of the codes of the table. During operation, modification of the text phrases associated with each of the codes of the table is permitted. A plurality of services are executed, including retrieving a single one of the text phrases, retrieving all of the text phrases in response to a single command, updating a single code and text phrase combination, updating all of the code and text phrase combinations, naming the table, adding a new code and text phrase combination, removing one of the code and text phrase combination, and adding another table.

15 Claims, 179 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 111

Full Title Citation Front Review Classification Date Reference Sequences Attachments Clair	ns KONC Draw	Claims	Attachments	Sequences	Reference	Date	Classification	Review	Front	Citation	Title	Full

☐ 7. Document ID: US 6601233 B1

L5: Entry 7 of 13

File: USPT

Jul 29, 2003

US-PAT-NO: 6601233

DOCUMENT-IDENTIFIER: US 6601233 B1

TITLE: Business components framework

DATE-ISSUED: July 29, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Underwood; Roy Aaron Long Grove IL

US-CL-CURRENT: 717/102; 717/100, 717/101, 717/103, 717/104, 717/106, 717/107

#### ABSTRACT:

A method of generating software based on business components. A plurality of logical business components in a business are first defined with each business component having a plurality of capabilities. Next, functional interrelationships are identified between the logical business components. Code modules are then generated to carry out the capabilities of the logical business components and the functional interrelationships between the logical business components, wherein the code modules represent a transformation of the logical business components to their physical implementation, while ensuring the capabilities that are carried out by each code module are essentially unique to the logical business component associated with the code module. Next, the functional aspects of the code modules and the functional relationships of the code modules are tested. The code modules

Record List Display Page 6 of 10

are then subsequently deployed in an e-commerce environment.

18 Claims, 177 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 111

# Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw De

□ 8. Document ID: US 6523027 B1

L5: Entry 8 of 13 File: USPT Feb 18, 2003

US-PAT-NO: 6523027

DOCUMENT-IDENTIFIER: US 6523027 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Interfacing servers in a Java based e-commerce architecture

DATE-ISSUED: February 18, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Underwood; Roy Aaron Long Grove IL

US-CL-CURRENT: 707/4; 707/10, 707/100

### **ABSTRACT:**

A system, method and article of manufacture are provided for providing an interface between a first server and a second server with a proxy component situated therebetween. Initially, a request for a business object is identified by an application on the first server. The first server is then connected to the second server. Next, selection criteria from the first server is transmitted to the second server. In response to the selection criteria, the first server receives a first recordset and a second recordset from the second server. Business data is included in the first recordset and result codes are included in the second recordset. The first and second recordsets are mapped to the business object and the business object is sent to the application on the first server.

18 Claims, 179 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 111

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De

☐ 9. Document ID: US 6335927 B1

L5: Entry 9 of 13 File: USPT Jan 1, 2002

US-PAT-NO: 6335927

DOCUMENT-IDENTIFIER: US 6335927 B1

Record List Display Page 7 of 10

TITLE: System and method for providing requested quality of service in a hybrid network

DATE-ISSUED: January 1, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Elliott; Isaac K. Colorado Springs CO Reynolds; Tim E. Iowa City IA Krishnaswamy; Sridhar Cedar Rapid IA

US-CL-CURRENT: <u>370/352</u>

#### ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. The hybrid network also contains logic for responding to requests for quality of service and reserving the resources to provide the requested services.

16 Claims, 191 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 133

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw, De
										<del></del>		
	10.	Docum	ent ID	): US 6	092197 A							

File: USPT

Jul 18, 2000

US-PAT-NO: 6092197

L5: Entry 10 of 13

DOCUMENT-IDENTIFIER: US 6092197 A

TITLE: System and method for the secure discovery, exploitation and publication of

information

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Coueignoux; Philippe Lexington MA

US-CL-CURRENT: 713/200; 709/201

ABSTRACT:

System and method of discovering and exploiting information such as private or

confidential facts from a user, while securing the information from unauthorized publication includes, a sender having a processing module transmitting a request for publication of information about a user; an agent in communication with the sender receiving the request for the information, and a user in communication with the agent responding to prompts initiated by the agent. The prompts request the user to reveal facts relating to the information desired by the sender, and provide indicia relating to authorization for publication of the disclosed facts to the sender. The agent discovers the facts and determines whether such facts are to be made available to the sender. The agent can include a memory module, and a processing module such as a rule engine using dialog classes, for communicating with the sender and user, determining whether the indicia of authorization for the facts permits publication of the facts to the sender, and publishing the facts to the sender when said indicia represents a grant of authorization for publication. The agent can exploit all the facts it has discovered, whether authorized or not for publication, to personalize its communication with the user.

38 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 20

Full	Title	Citation	Front	Review	Classification	Date	Reference	S TURNORS	Altachments	Claims	KWIC	Draw. D
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		Docum		_								

File: USPT

Dec 7, 1999

US-PAT-NO: 5999525

L5: Entry 11 of 13

DOCUMENT-IDENTIFIER: US 5999525 A

TITLE: Method for video telephony over a hybrid network

DATE-ISSUED: December 7, 1999

#### INVENTOR-INFORMATION:

CITY	STATE	ZIP CODE	COUNTRY
Cedar Rapids	IA		
Colorado Springs	CO		
Iowa City	IA		
Iowa City	IA		
Cedar Rapids	IA		
	Cedar Rapids Colorado Springs Iowa City Iowa City	Cedar Rapids IA Colorado Springs CO Iowa City IA Iowa City IA	Cedar Rapids IA Colorado Springs CO Iowa City IA Iowa City IA

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.15, 379/90.01, 379/93.07

## ABSTRACT:

Telephone calls, data and other multimedia information including video, audio and data is routed through a switched network which includes transfer of information across the internet. Users can transmit video, audio and data communications of designated quality over the internet to other registered video telephony users. Users can manage more aspects of a network than previously possible, and control network activities from a central site.

30 Claims, 190 Drawing figures

Record List Display Page 9 of 10

Exemplary Claim Number: 11
Number of Drawing Sheets: 134

Full Title Citation Front Review Classification Date Reference Seguences Attachments Claims KMC Draw. De

☐ 12. Document ID: US 5867495 A

L5: Entry 12 of 13 File: USPT

Feb 2, 1999

US-PAT-NO: 5867495

DOCUMENT-IDENTIFIER: US 5867495 A

TITLE: System, method and article of manufacture for communications utilizing calling, plans in a hybrid network

DATE-ISSUED: February 2, 1999

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Elliott; Isaac K. Colorado Springs CO Krishnaswamy; Sridhar Cedar Rapids IA

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/11, 379/115.01, 379/90.01, 379/93.07

#### ABSTRACT:

Telephone calls, data and other multimedia information is routed through a hybrid network which includes transfer of information across the internet utilizing telephony routing information and internet protocol address information. A media order entry captures complete user profile information for a user. This profile information is utilized by the system throughout the media experience for routing, billing, monitoring, reporting and other media control functions. Users can manage more aspects of a network than previously possible, and control network activities from a central site. Calling card access is provided for users and supports typical calls as well as media transfers over the hybrid network including over the internet.

27 Claims, 190 Drawing figures Exemplary Claim Number: 19 Number of Drawing Sheets: 132

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D

☐ 13. Document ID: US 5867494 A

L5: Entry 13 of 13

File: USPT

Feb 2, 1999

US-PAT-NO: 5867494

DOCUMENT-IDENTIFIER: US 5867494 A

TITLE: System, method and article of manufacture with integrated video conferencing

Record List Display Page 10 of 10

billing in a communication system architecture

DATE-ISSUED: February 2, 1999

#### INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Krishnaswamy; Sridhar Cedar Rapids IA Elliott; Isaac K. Colorado Springs CO Reynolds; Tim E. Iowa City IA Forgy; Glen A. Iowa City IA Solbrig; Erin M. Cedar Rapids IA

US-CL-CURRENT: 370/352; 370/389, 370/392, 379/114.15, 379/90.01, 379/93.07

#### ABSTRACT:

Telephone calls, data and other multimedia information including video, audio and data is routed through a switched network which includes transfer of information across the internet. Users can participate in video conference calls in which each participant can simultaneously view the video from each other participant and hear the mixed audio from all participants. Users can also share data and documents with other video conference participants. Users can manage more aspects of a network than previously possible, and control network activities from a central site. Billing of the conference call is accomplished utilizing a billing detail record to capture events associated with a call as they occur and debit the appropriate bill.

20 Claims, 192 Drawing figures Exemplary Claim Number: 7 Number of Drawing Sheets: 134

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawu Di
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	Terr	ns			Documents							
	L4 a	aND qu	adrant								13	

Display Format: REV Change Format

Previous Page Next Page Go to Doc#

# **Print Request Result(s)**

Printer Name: ran\_5c70\_gbrhptr Printer Location: ran\_5c70 Number of Copies Printed: 1

- US006523027: Ok
- US005867494: Ok
- US006601233: Ok
- US006609128: Ok



## **Hit List**



## **Search Results -** Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 6745382 B1

L8: Entry 1 of 8 File: USPT

Jun 1, 2004

US-PAT-NO: 6745382

DOCUMENT-IDENTIFIER: US 6745382 B1

TITLE: CORBA wrappers for rules automation technology

DATE-ISSUED: June 1, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Zothner; Eric Apex NC

US-CL-CURRENT: 717/107

#### ABSTRACT:

A method, system, and software product in which wrappers for <u>rules</u> automation technology are provided. <u>Business rules</u>, business objects, and at least one object agent, representing a corresponding one of the business objects, are provided. The object agent is inserted into a <u>business rules</u> agenda for executing the <u>business rules</u> so that the <u>business rules</u> are directly applied to the object agent, and thereby, are indirectly applied to the corresponding business object. This approach advantageously allows unsophisticated users of <u>rules</u> automation technology to interface with complex business objects and prevents an exception from destroying a business transaction.

24 Claims, 9 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 9

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De

☐ 2. Document ID: US 6745381 B1

L8: Entry 2 of 8 File: USPT Jun 1, 2004

US-PAT-NO: 6745381

DOCUMENT-IDENTIFIER: US 6745381 B1

TITLE: Method and apparatus for annotating static object models with business rules

Record List Display Page 2 of 7

DATE-ISSUED: June 1, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ehnebuske; David Lars Georgetown TX McKee; Barbara Jane Alspach Austin TX

US-CL-CURRENT: 717/100

#### ABSTRACT:

A method and apparatus for providing a methodology and notation which enables an explicit distinction between those features of an <u>object-oriented</u> object model that are intended to be easily changed due to changing business needs, from those features which are fundamental to the object models. The methodology does this during the modeling process by capturing decisions to allow for business-driven variability as explicit diagram annotations called Control Points. The business variable portions of the system of interacting objects are simultaneously captured as objects called Business Rules.

12 Claims, 5 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWAC	Drawe De

☑ 3. Document ID: US 6532465 B2

L8: Entry 3 of 8 File: USPT Mar 11, 2003

US-PAT-NO: 6532465

DOCUMENT-IDENTIFIER: US 6532465 B2

TITLE: Operational system for operating on client defined rules

DATE-ISSUED: March 11, 2003

### INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hartley; Bruce	Elbert	CO	80106	
Ricotta; Frank	Colorado Springs	CO	80919	
Vanderwall; Jim	Denver	CO	80218	
Locke; Tony	Colorado Springs	CO	80920	
Perkins; Tony	Northglenn	CO	80234	
Brown; Rodney	Highlands Ranch	CO	80126	

US-CL-CURRENT: <u>707/10</u>; <u>718/1</u>

#### ABSTRACT:

The disclosure includes a computational system implemented with respect to a novel

Record List Display Page 3 of 7

computational architecture for operating an externally-defined data based on client-defined <u>rules</u>. In one of the implementations, the architecture is utilized in a billing and customer service program. The architecture includes a engine unit which includes a number of processing modules which internally operate on generic data units that are independent of the particular application. A metadata engine receives externally-defined data and relates the externally-defined data and the relates the externally-defined data to the generic data units for use for the engine unit. A <u>rules</u>-based engine provides to the engine unit information related to the client defined <u>rules</u>. In this manner, the engine unit can be reused in a large part in a variety of different environments.

35 Claims, 19 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 19

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw Do

☐ 4. Document ID: US 6473748 B1

L8: Entry 4 of 8 File: USPT Oct 29, 2002

US-PAT-NO: 6473748

DOCUMENT-IDENTIFIER: US 6473748 B1

TITLE: System for implementing rules

DATE-ISSUED: October 29, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Archer; Jack L. Yorba Linda CA

US-CL-CURRENT: 706/45; 706/46, 706/47

#### ABSTRACT:

A method, system and computer program product for implementing rules. More specifically, a method, system and computer program product for implementing rules is developed by separating business rules from application logic. This architecture effects the implementation of software business rules in a single location, for sharing across software applications as needed. Software business rules are created and maintained by business experts directly, rather than requiring programmers to translate the rules to software code. Thus, programmers are free to concentrate on programming issues and software business rules (new logic, not just new values/ranges) may be added or changes may be made to existing rules without modifying the software applications which use the business rules. Software business rules are written to implement business logic, which does not perform any kind of computer systems manipulation to obtain the data that it works on, nor does it include any logic to manipulate the underlying computer system in general such as memory allocations and network communications, etc. In this architecture, software application logic is a purely computer system operational piece of logic such as, for example, data access, inter-process communications, screen rendering, network communications or data base access, or any type of computer systems manipulation, and is not included in the same physical software module as business logic. Pure

Record List Display Page 4 of 7

application logic, and range checking, are included in software application modules, which are distinct from the software modules which include business logic.

23 Claims, 5 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 5

# Full Title Citation Front Review Classification Date Reference **Sequences Attachments** Claims KMC Draw Do

5. Document ID: US 6341369 B1

L8: Entry 5 of 8 File: USPT Jan 22, 2002

US-PAT-NO: 6341369

DOCUMENT-IDENTIFIER: US 6341369 B1

TITLE: Method and data processing system for specifying and applying <u>rules</u> to classification-based decision points in an application system

DATE-ISSUED: January 22, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Degenaro; Louis Ralph White Plains NY
Ehnebuske; David Lars Georgetown TX
McKee; Barbara Jane Alspach Austin TX
Rasmus; Kevin Paul Bloomington IL
Rouvellou; Isabelle Marie Catherine New York City NY

US-CL-CURRENT: 717/117; 706/47

#### ABSTRACT:

A method and apparatus for specifying, applying and managing rules used by an application in a data processing system are provided. A set of classification categories are specified, each classification category representing a different purpose of classification. A set of classifications are specified, each classification representing a possible outcome of an act of classifying. A set of control point names are specified, each name being associated with one or more control points in the application. A set of classification rules are specified, each such rule being associated with a classification category and said rule being adapted to analyze the state of the application and classify it by returning one or more classifications. A set of decision rules are specified, each such rule being associated with a classification and a control point name, said rule being adapted to affect the behavior of the application by calculating a value or making a decision. A set of control points is specified and built into the application at those points in the application flow at which variability of behavior controlled by rules is desired, each such control point being associated with a control point name and one or more classification categories. During the running of the application, when a control point as described above is encountered, the control point's associated classification categories are used to select that set of classification rules associated with any of the classification categories and the selected classification rules are then run.

Record List Display Page 5 of 7

38 Claims, 4 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 4

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw De

☐ 6. Document ID: US 6272482 B1

L8: Entry 6 of 8 File: USPT Aug 7, 2001

US-PAT-NO: 6272482

DOCUMENT-IDENTIFIER: US 6272482 B1

TITLE: Managing business rules using jurisdictions

DATE-ISSUED: August 7, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

McKee; Barbara Jane Alspach Austin TX Ehnebuske; David Lars Georgetown TX

US-CL-CURRENT: <u>706/47</u>; <u>705/7</u>

#### ABSTRACT:

A method of managing a set of <u>rules</u> used by a computer program, by defining jurisdictions adapted to exert authority over a decision to be made by the program, creating at least one control point for the decision, and mapping <u>rules</u> from the jurisdictions to the control point. Multiple control points may be created for a given decision, with different sets of <u>rules</u> being mapped to the respective control points. The business management system of the present invention preferably allows jurisdictions to assert exclusivity over decisions, and assigns different priority values to each jurisdiction for a given control point. Management of the <u>rules</u> is simplified by allowing quick identification of a subset of <u>rules</u> from the jurisdictions that apply to a given control point, and by further allowing identification of one or more <u>rules</u> in the subset of the <u>rules</u> that are affected by a change pertaining to the control point.

15 Claims, 5 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference	Seguences	Attachments	Claims	KMC	Draw, De

☐ 7. Document ID: US 6016477 A

L8: Entry 7 of 8 File: USPT Jan 18, 2000

US-PAT-NO: 6016477

DOCUMENT-IDENTIFIER: US 6016477 A

Record List Display

TITLE: Method and apparatus for identifying applicable business rules

DATE-ISSUED: January 18, 2000

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ehnebuske; David Lars Georgetown TX McKee; Barbara Jane Alspach Austin TX

US-CL-CURRENT: <u>705/7</u>; <u>706/11</u>, <u>706/60</u>

#### ABSTRACT:

A method and apparatus for identifying decision points in Business Objects and classifying <u>business rules</u> that are applicable to the decision points. Business Objects are created which are decorated with <u>business rules</u>, either manually or programmatically. Control Points are used to represent the named decision points or triggers within the behavior of the Business Objects. The Control Points are visually exposed to business analysts to allow the examination of the <u>business rules</u> attached to the various Control Points. The business analysts are permitted to manually attach or detach <u>business rules</u> associated with the Control Points. A system can programmatically decide which <u>rules</u> to attach to a Control Point based on execution context.

12 Claims, 4 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 3

Full Title	e Citation	Front	Review	Classification	Date	Reference	Sagnantis	Telegraphical self-	Claims	KWIC	Drawt De

□ 8. Document ID: US 5802508 A

L8: Entry 8 of 8

File: USPT

Sep 1, 1998

US-PAT-NO: 5802508

DOCUMENT-IDENTIFIER: US 5802508 A

TITLE: Reasoning with rules in a multiple inheritance semantic network with

exceptions

DATE-ISSUED: September 1, 1998

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Morgenstern; Leora New York NY

US-CL-CURRENT: <u>706/55</u>; <u>706/48</u>

### ABSTRACT:

A new data structure describes an inheritance network with exceptions, augmented with <u>rules</u> attached to nodes in the network, a background context of rules and

Record List Display Page 7 of 7

information, and an optional prioritization of links in the network. A process that determines which  $\underline{\text{rules}}$  apply to classes (nodes) in the taxonomy exploits the structure of the network, in particular specificity and path prioritization, to get preferred maximally consistent subsets of  $\underline{\text{rules}}$  that apply at specified nodes.

37 Claims, 34 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 32

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachmants	Claims	KWIC	Draw. D	
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	Terms						Docume	ents					
	L7	AND L	6				8						

Display Format: REV Change Format

Previous Page Next Page Go to Doc#

# **Print Request Result(s)**

Printer Name: ran\_5c70\_gbrhptr Printer Location: ran\_\_5c70 Number of Copies Printed: 1

- US006016477: Ok
- US006341369: Ok
- US006473748: Ok
- US006532465: Ok



# **Print Request Result(s)**

Printer Name: ran\_5c18\_gbrgptr Printer Location: ran\_5c18 Number of Copies Printed: 1

- US006662164: Ok
- US006249905: Ok
- US006816702: Ok
- US006199047: Ok
- US006389588: Ok
- US006789252: Ok
- US006850922: Ok
- US005870719: Ok
- US006810429: Ok
- US006067531: Ok
- US006330711: Ok
- US006751657: Ok
- US006338069: Ok
- US006775658: Ok
- US005745901: Ok
- US006148290: Ok
- US006453356: Ok
- US006456986: Ok



## **Hit List**



## **Search Results -** Record(s) 1 through 34 of 34 returned.

☑ 1. Document ID: US 6850922 B1

L9: Entry 1 of 34

File: USPT

Feb 1, 2005

US-PAT-NO: 6850922

DOCUMENT-IDENTIFIER: US 6850922 B1

TITLE: Business logic support

DATE-ISSUED: February 1, 2005

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Wason; James Richard Tuxedo NY

US-CL-CURRENT: 706/47

#### ABSTRACT:

A mechanism to isolate and externalize the definition of <u>business rules</u>, and to support them using visual programming techniques (special editors for Java beans). This means that the <u>rules</u> can be set up by a business expert who does not need specialized programming skills. In addition, the Java beans are preferably implemented as dynamic Java beans.

14 Claims, 3 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMIC	Draw, De

☑ 2. Document ID: US 6816702 B2

L9: Entry 2 of 34

File: USPT

Nov 9, 2004

US-PAT-NO: 6816702

DOCUMENT-IDENTIFIER: US 6816702 B2

TITLE: Consolidated online assessment system

DATE-ISSUED: November 9, 2004

INVENTOR-INFORMATION:

Record List Display Page 2 of 26

NAME CITY STATE ZIP CODE COUNTRY

Kuntz; David L. Yardley PA
Cody; Preston Lawrenceville NJ
Ivanov; Georgi Stefanov Ringoes NJ
Perlow; John E. Brick NJ

US-CL-CURRENT: 434/353; 434/322, 434/323

#### ABSTRACT:

A Consolidated Online Assessment System (COLA System) that creates, manipulates, and distributes an objected-oriented paradigm that represents the scoring and related activities as a unified and integrated family of loosely coupled objects, most notably a "Case" representing a state-machine that replaces the constructed response from the test taker as the unit of work. The Scoring Model and associated Properties that encapsulate the <u>business rules</u> associated with what actions are appropriate or required for a unit of work and the Responses to the unit of work which represent the test-taker-contributed content (e.g., essays or other text-based responses, audio responses, digitized video responses, scanned images, diagrams, lessons plans, etc.) and ties that content to its creator are linked to a Distinct Scorable Unit (DSU) which represents a tree-based mechanism that connects and provides inheritability for the other primary system objects. The abstraction of the DSU allows the system to distinguish between the constructed response as test-taker contributed content and the constructed response as the carrier of state or status information as it passes through the assessment process.

28 Claims, 22 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 22

Full Title Citation	Front Review Cl	assification Date	Reference Se	equences Attachme	nts Claims	KWWC Draw. [

## ☑ 3. Document ID: US 6810429 B1

L9: Entry 3 of 34 File: USPT Oct 26, 2004

US-PAT-NO: 6810429

DOCUMENT-IDENTIFIER: US 6810429 B1

TITLE: Enterprise integration system

DATE-ISSUED: October 26, 2004

## INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Walsh; Thomas C. Cambridge MA Young; Michael J. Boxborough MA DiCelie; Joseph J. Boylston MA Wong; David W. H. Boxborough MA Esenther; Alan W. Ashland MA

US-CL-CURRENT: 709/246; 719/328

Record List Display Page 3 of 26

#### ABSTRACT:

An enterprise integration system is coupled to a number of legacy data sources. The data sources each use different data formats and different access methods. The integration system includes a back-end interface configured to convert input data source information to input XML documents and to convert output XML document to output data source information. A front-end interface converts the output XML documents to output HTML forms and the input HTML forms to the XML documents. A middle tier includes a <u>rules</u> engine and a <u>rules</u> database. Design tools are used to define the conversion and the XML documents. A network couples the back-end interface, the front-end interface, the middle tier, the design tools, and the data sources. Mobile agents are configured to communicate the XML documents over the network and to process the XML documents according to the <u>rules</u>.

21 Claims, 10 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 10

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Drawt De
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## ☑ 4. Document ID: US 6789252 B1

L9: Entry 4 of 34

File: USPT

Sep 7, 2004

US-PAT-NO: 6789252

DOCUMENT-IDENTIFIER: US 6789252 B1

TITLE: Building business objects and business software applications using dynamic object definitions of ingrediential objects

DATE-ISSUED: September 7, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Burke; Miles D. Phoenix AZ 85016 Solar, Jr.; Richard J. Phoenix AZ 85018

US-CL-CURRENT: 717/100; 717/103

### ABSTRACT:

A method and system are provided for providing an open and extensible object definition framework that manages business object definitions as specifications. This framework may be used to dynamically define any object that is to be processed by a computer. Objects can include Properties, Classifications, Knowledge, Business Objects, and Business Rules to name a few. Some examples of typical Business Objects include: business and social entities; locations, including spaces, places and channels; activities, including events and processes; items, including products and services; and business records, including orders and other forms of demand, inventory, jobs, deliverables, statements, transaction history et. al. The method and system may be used to define any object that is to be processed by a computer. Objects can include Properties, Classifications, Knowledge, Business Objects, and Business Rules to name a few. Typical Business Objects include: Business and social entities; Locations including spaces, places, and channels; Activity including

Record List Display Page 4 of 26

events and processes; Items including products and services; Business Records including orders and other forms of demand, inventory, jobs, deliverables, statements, transaction history et. al.

237 Claims, 127 Drawing figures

Exemplary Claim Number: 1
Number of Drawing Sheets: 72

Full Title Citation Front Review Classification Date Reference Seguences Attachments Claims KMC Draw. De

L9: Entry 5 of 34

File: USPT

Aug 10, 2004

US-PAT-NO: 6775658

DOCUMENT-IDENTIFIER: US 6775658 B1

TITLE: Notification by business rule trigger control

DATE-ISSUED: August 10, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE

COUNTRY

Zothner; Eric R.

Apex NC

US-CL-CURRENT: 706/47; 705/28, 705/412, 707/100, 709/202, 709/203

#### ABSTRACT:

An approach for providing notification services using <u>rules</u>-based technology is disclosed. A business rule manager module maps the <u>business rules</u> to business triggers, in which any pre-defined action can be performed based on the rule execution. Business rule triggers map a set of object life cycle states or business processes to set(s) of <u>business rules</u>; these <u>business rules</u> are mapped to trigger conditions. Notifications are then mapped to the business triggers such that the appropriate information can be sent to the recipients according to the business conditions or business rule actions.

9 Claims, 15 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 15

Full Title Citation Front Review Classification Date Reference Seguences Attachments Claims KMC Draw. De

L9: Entry 6 of 34

File: USPT

Jun 15, 2004

US-PAT-NO: 6751657

DOCUMENT-IDENTIFIER: US 6751657 B1

Record List Display Page 5 of 26

TITLE: System and method for notification subscription filtering based on user role

DATE-ISSUED: June 15, 2004

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Zothner; Eric R. Apex NC

US-CL-CURRENT: 709/220; 709/203, 709/206, 709/207, 709/238, 719/318

#### ABSTRACT:

An approach for providing notification services using <u>rules</u>-based technology is disclosed. A <u>Business Rules</u> Manager module maps the <u>business rules</u> to business triggers, in which any pre-defined action can be performed based on the rule execution. Business rule triggers map a set of object life cycle states or business processes to set(s) of <u>business rules</u>; these <u>business rules</u> are mapped to trigger conditions. Notifications are then mapped to the business triggers (i.e., notification trigger points) such that the appropriate information can be sent to the recipients according to the business conditions or business rule actions. The users subscribe to the notification trigger points based upon the users' role, as specified in the user profiles. A user supplied subscription filter criteria permits filtering of the notifications. However, a global user override attribute associated with a notification trigger point can bypass the subscription filter criteria.

23 Claims, 15 Drawing figures Exemplary Claim Number: 12 Number of Drawing Sheets: 15

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWWC	Draw, De
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☑ 7. Document ID: US 6662164 B1

L9: Entry 7 of 34 File: USPT Dec 9, 2003

US-PAT-NO: 6662164

DOCUMENT-IDENTIFIER: US 6662164 B1

TITLE: Method and apparatus for determining commission

DATE-ISSUED: December 9, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Koppelman; Joshua Austin TX Tellefsen; Jens Austin TX

US-CL-CURRENT: <u>705/14</u>; <u>705/11</u>

ABSTRACT:

Record List Display Page 6 of 26

The invention provides for a method and apparatus for determining the commission to be paid to a sales representative or sales team. Whenever a sale occurs, a Transaction describing the sale is created and inputted into the Commission system of one embodiment of the invention. Based on a set of Allocation Rules that specify the credit an individual is to receive from a Transaction, the Transactions are converted into several Allocations for individual Sales Representatives or Sales Teams. One or more Quotas specify a target or goal that must be reached to earn commission for each Sales Team. A Quota State indicates the current performance of a Sales Representative with respect to a particular Quota within a particular time frame. The Quotas are used to convert the Allocations/Transactions into Quota Details that specify how to increment or decrement the Quota State. A Promotion specifies the reward or commission that is received upon attaining a desired level of performance. Once a Quota State reaches a level necessary to receive a Commission or reward as set by a specific Promotion, a ledger item indicating the amount to be paid to a particular Sales Team is created. A user interface may be used to create Allocation Rules, Quotas, and Promotions that are awarded for performance over a specified time period. In this manner, a business may set up incentive plans and determine commissions easily and accurately.

66 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full Title Citation Front Review Classification Date Reference **Sequences Attachments** Claims KMC Draw Do

□ 8. Document ID: US 6640249 B1

L9: Entry 8 of 34

File: USPT

Oct 28, 2003

US-PAT-NO: 6640249

DOCUMENT-IDENTIFIER: US 6640249 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Presentation services patterns in a netcentric environment

DATE-ISSUED: October 28, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Bowman-Amuah; Michel K. Colorado Springs CO

US-CL-CURRENT: 709/228; 719/315

#### ABSTRACT:

A system, method and article of manufacture are provided for implementing presentation services patterns. Non-presentation logic executed on a client is assigned to an activity for allowing reuse of the non-presentation logic across multiple, volatile user interfaces. A view is assigned to the activity. Validation rules are also structured for validating user data across the multiple user interfaces.

15 Claims, 195 Drawing figures Exemplary Claim Number: 1

Record List Display Page 7 of 26

Number of Drawing Sheets: 123

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

□ 9. Document ID: US 6625651 B1

L9: Entry 9 of 34

File: USPT

Sep 23, 2003

US-PAT-NO: 6625651

DOCUMENT-IDENTIFIER: US 6625651 B1

TITLE: On-line transaction control during activation of local telecommunication

service

DATE-ISSUED: September 23, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Swartz; Stephen J. Maple Grove MN
Bakshi; Anil R. Ridgewood NJ
Murphy; Christopher John Minneapolis MN
Baeth; Kevin Ronald New Hope MN

US-CL-CURRENT: 709/226; 707/10, 709/201, 709/217, 709/219, 709/224, 709/229,

<u>713/200, 713/201</u>

### ABSTRACT:

A system, method and article of manufacture for the management of data during activation of local telecommunication service. More particularly to an on-line transaction controller that provides predetermined network information, the information residing in a storage medium. Requests are generated by one of a plurality of modules that are received by the controller. The requests provide transactional information. The transactional information is compared to the predetermined network information. The comparison bases decisions on the <u>business</u> <u>rules</u>. The transactional information is manipulated upon detection of a discrepancy relative to the predetermined network information.

34 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 27

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De

☐ 10. Document ID: US 6606304 B1

L9: Entry 10 of 34 File: USPT Aug 12, 2003

US-PAT-NO: 6606304

DOCUMENT-IDENTIFIER: US 6606304 B1

Record List Display Page 8 of 26

TITLE: System for real-time monitor and response

DATE-ISSUED: August 12, 2003

**INVENTOR-INFORMATION:** 

NAME CITY STATE ZIP CODE COUNTRY

Grinter; Richard C. Arlington TX Alvarez; David Plano TX

US-CL-CURRENT: 370/252; 340/573.4, 370/386

#### ABSTRACT:

A data and object monitoring and response system comprising a three tier infrastructure for optimization of interoperability and task specific adaptability. The system gathers information from a plurality of distributed data gathering units and assimilates, processes, analyzes and distributes the gathered data within a common system with rule based data processing for coordinated response to the data. The data gatehring units can be locally distributed or widely disbursed. The information gathered can be real-time collection of event data, historical data, systems monitoring, or other data. Regardless of the specific nature of the data, the system taught in the present invention, addresses a number of common problems associated with the collection, assimilation, processing of data. By dividing the system into a three tier interactive structure, the data can be gathered, evaluated and processed independently and efficiently and appropriate response can be effectively implemented. The processing tier, which includes the rules for analysis of the data, exists independent of the operator interface and data gathering tiers. A wide diversity of data collection equipment can be accommodated without modification of the operator interface or the processing tier. Processing rules can be modified without altering the collection and handeling of data, and a commonality of data structure eliminates multiple polling of collected data sets.

8 Claims, 5 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 5

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Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMO	Drawt De

☐ 11. Document ID: US 6510468 B1

L9: Entry 11 of 34 File: USPT Jan 21, 2003

US-PAT-NO: 6510468

DOCUMENT-IDENTIFIER: US 6510468 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Adaptively transforming data from a first computer program for use in a second computer program

account compact program

DATE-ISSUED: January 21, 2003

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Record List Display

Hayne; Mark N.

San Jose

CA

US-CL-CURRENT: 709/246; 715/501.1

#### ABSTRACT:

A system for transforming a mainframe application into corresponding web-based application is disclosed. A set of logic <u>rules</u> and data are extracted from the mainframe application. Link objects containing the set of logic <u>rules</u> and data are created. The link objects point to the <u>rules</u> and data in the mainframe application. The link objects are mapped to display regions defined by web-based application. Web pages are created to display the transformed mainframe application and a web-browser is used to display and navigate among the data in the mainframe application.

3 Claims, 18 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 16

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWAC	Draw, De

☐ 12. Document ID: US 6473760 B1

L9: Entry 12 of 34

File: USPT

Oct 29, 2002

US-PAT-NO: 6473760

DOCUMENT-IDENTIFIER: US 6473760 B1

TITLE: Apparatus for printing information automatically combined from two different

sources

DATE-ISSUED: October 29, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Klatt; Cory Edmonds WA Krum; Brent Redmond WA

US-CL-CURRENT: <u>707/10</u>; <u>270/52.02</u>, <u>707/200</u>, <u>707/203</u>, <u>707/205</u>, <u>709/202</u>

## ABSTRACT:

Information stored in a corporate database is monitored and used to determine when certain business-related events have occurred. Event information is transmitted over the Internet to a print production facility, where it is used to fire one or more event <u>rules</u>, which in turn automatically generate print requisitions or print production orders. In one variation, print requisitions are routed through an existing and commercially available procurement system before a print production order is generated. The system can monitor and handle events from multiple corporations, each having its own business-related event <u>rules</u>, and each potentially having its own procurement approval system.

14 Claims, 15 Drawing figures

Record List Display

Exemplary Claim Number: 1
Number of Drawing Sheets: 15

# Full Title Citation Front Review Classification Date Reference Section Atachments Claims KMC Draw De

☑ 13. Document ID: US 6456986 B1

L9: Entry 13 of 34

File: USPT

Sep 24, 2002

US-PAT-NO: 6456986

DOCUMENT-IDENTIFIER: US 6456986 B1

TITLE: Decision network based event pricing system in a component based, <u>object oriented</u> convergent customer care and billing system

DATE-ISSUED: September 24, 2002

INVENTOR - INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Boardman; Stuart

Amsterdam

NL DE

Rubesam; Andreas

Meerbusch

#### ABSTRACT:

A ratings engine system that uses decision networks to select and execute Price Plans to rate an Event. A plan selection rule set is used to select a Price Plan for the Event and an Algorithm rule set is used to select an Algorithm to rate the Event. The Price Plans and rule sets are stored in a database. Conditions are also evaluated as the rule sets are traversed and include a program that determines if an Event qualifies for the Condition. Conditions can have a range or domain of applicability. The changing of the decision network changes the <u>business rules</u> for the Event without changing the Algorithms or Conditions.

US-CL-CURRENT: <u>705/400</u>; <u>379/111</u>, <u>379/114.01</u>, <u>379/114.03</u>, <u>705/30</u>, <u>705/34</u>, <u>705/418</u>

18 Claims, 8 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Alacinens	Claims	KWIC	Drawt De

☑ 14. Document ID: US 6453356 B1

L9: Entry 14 of 34

File: USPT

Sep 17, 2002

US-PAT-NO: 6453356

DOCUMENT-IDENTIFIER: US 6453356 B1

TITLE: Data exchange system and method

Record List Display Page 11 of 26

DATE-ISSUED: September 17, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Sheard; Nicolas C. Palo Alto CA Fischer; Larry J. Campbell CA Matthews; Richard W. Redwood City CA Himabindu; Gurla Sunnyvale CA Hu; Qilin Mountain View CA Zheng; Wendy J. Cupertino CA Mow; Boyle Y. Freemont CA

US-CL-CURRENT: <u>709/231</u>

#### **ABSTRACT:**

A system and method for exchanging data between two or more applications includes a data exchange engine and a number of adapters associated with a corresponding number of applications. Each of the adapters is customized to interface with a corresponding application and transforms data being transferred between the application and the data exchange engine. Data produced by a particular application is converted from a technology dependent form to a technology independent form by the corresponding adapter. In one embodiment, the format associated with a data stream is disassociated from the informational content of the data stream by the adapter. The informational content of the data stream is then transformed by the adapter into a common or generic format. The data exchange engine receives data in a technology independent form from each of its associated adapters and coordinates the routing of informational content to particular adapters associated with applications that have requested specific informational content. The adapters receiving the informational content from the data exchange engine transform the informational content having the common format into a data format compatible with, or specific to, their associated applications. A queuing mechanism is employed to construct a reliable asynchronous or pseudo-synchronous interface between disparate applications and systems. The data exchange engine may apply business rules or logic when processing a request for particular informational content. Userspecified routing logic may be applied by the data exchange engine to dispatch selected informational content to one or more destination applications.

56 Claims, 23 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 18

Full   Tit	le Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De
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□ 15	. Docum	ient ID	): US 6	5446076 B1							
L9: Ent:	ry 15 of	34				File:	USPT		Sep	3,	2002

US-PAT-NO: 6446076

DOCUMENT-IDENTIFIER: US 6446076 B1

TITLE: Voice interactive web-based agent system responsive to a user location for prioritizing and formatting information

Record List Display Page 12 of 26

DATE-ISSUED: September 3, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Burkey; Chad Atherton CA
Lopatin; Sergei Mountain View CA
Hughes; Lucian Montara CA

US-CL-CURRENT: 707/102; 704/270, 709/229

### **ABSTRACT:**

A system, method and article of manufacture for facilitating a user in, or creating for a user, a web-based active knowledge management system to facilitate an intelligent agent coordinator. The architecture facilitates delivery of information whenever and where ever a user requires the information in an appropriate format based on characteristics of the user at that instant. Personalization of information is also afforded by taking into account the history of user interactions with various applications and current real time situations, such a time and place, in order to create a plurality of unique user profile. Each unique profile can then be associated with a unique address, as well as being given restriction exclusive to that profile. Associations, such as <u>business rules</u> or databases, can also be related to each such profile. A fast and scalable information prioritization subsystem is also utilized to incorporate intelligent agents coordinator opinion, user preferences, and history of user interactions. In addition, speech recognition and speech synthesis are combined with intelligent agent animated representation and tactile input.

22 Claims, 27 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 27

☐ 16. Document ID: US 6415277 B1

L9: Entry 16 of 34 File: USPT Jul 2, 2002

US-PAT-NO: 6415277

DOCUMENT-IDENTIFIER: US 6415277 B1

TITLE: Method of generating print production tasks using information extracted from enterprise databases

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Klatt; Cory Edmonds WA Krum; Brent Redmond WA

US-CL-CURRENT: <u>707/1</u>; <u>700/233</u>, <u>700/95</u>, <u>707/10</u>, <u>709/224</u>

Record List Display Page 13 of 26

#### ABSTRACT:

Information stored in a corporate database is monitored and used to determine when certain business-related events have occurred. Event information is transmitted over the Internet to a print production facility, where it is used to fire one or more event <u>rules</u>, which in turn automatically generate print requisitions or print production orders. In one variation, print requisitions are routed through an existing and commercially available procurement system before a print production order is generated. The system can monitor and handle events from multiple corporations, each having its own business-related event <u>rules</u>, and each potentially having its own procurement approval system.

29 Claims, 15 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 15

Full	Title	Citation	Front	Review	Classification	Date	Reference	VALUE IN THE SALE.	Missingene	Claims	KWIC	Draw, De

☑ 17. Document ID: US 6389588 B1

L9: Entry 17 of 34

File: USPT

May 14, 2002

US-PAT-NO: 6389588

DOCUMENT-IDENTIFIER: US 6389588 B1

TITLE: Method and system of business rule extraction from existing applications for integration into new applications

DATE-ISSUED: May 14, 2002

#### INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Wadhwa; Vivek Chapel Hill NC Erlikh; Len Brooklyn NY Oara; Ioan M Cary NC Terekhov; Andrey N. Sankt-Petersburg RU Bulyonkov; Mikhail Morskoj RU

US-CL-CURRENT: 717/106; 717/110

#### ABSTRACT:

A method of extracting and transforming a business rule which is a self contained section of legacy code focused on the computation of specific business policy includes identifying the business rule. Thereafter, the business rule code is located in the existing program and extracted in human readable code form. New code is generated for a new application for containing the business rule therein, and the new code is integrated into the new application. A system for extracting and transforming such <u>business rules</u> from existing programs such as legacy applications to a new application includes various components for achieving the various noted steps.

26 Claims, 4 Drawing figures

Record List Display Page 14 of 26

Exemplary Claim Number: 1
Number of Drawing Sheets: 4

Full Title Citation Front Review Classification Date Reference Resultances Attachments Claims KMIC Draw De

☑ 18. Document ID: US 6338069 B1

L9: Entry 18 of 34

File: USPT

Jan 8, 2002

US-PAT-NO: 6338069

DOCUMENT-IDENTIFIER: US 6338069 B1

TITLE: Method and apparatus for managing functions

DATE-ISSUED: January 8, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Ghatate; Bhalchandra Austin TX

US-CL-CURRENT: 707/103R

#### ABSTRACT:

A method and apparatus for managing functions (e.g., that express <u>business rules</u>) to allow calling functions, maintaining functions, and providing of an execution framework for functions. In one embodiment, there are a number of functions to be maintained. An object technology infrastructure is formed to store data and metadata for the functions. For example, metadata about a function can include data describing what that function does, a "cost" associated with that function, how to execute that function, the input and output parameters required by that function. The exposure of the metadata regarding the functions' input and output parameters allows an engine to track input/output relationships between the functions and, in essence, define the order of execution.

46 Claims, 28 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 21

Full	Title	Citation	Front	Review	Classification	Date	Reference	STORY !	ettagaments.	Claims	KWIC	Draw, De

☑ 19. Document ID: US 6330711 B1

L9: Entry 19 of 34

File: USPT

Dec 11, 2001

US-PAT-NO: 6330711

DOCUMENT-IDENTIFIER: US 6330711 B1

TITLE: Method and apparatus for dynamic application and maintenance of programs

DATE-ISSUED: December 11, 2001

Page 15 of 26 Record List Display

INVENTOR-INFORMATION:

STATE ZIP CODE COUNTRY NAME CITY

Austin TX Knutson; James

US-CL-CURRENT: 717/100

#### ABSTRACT:

A method and apparatus providing a data processing system for managing rules in a program in a Java operating system. The program is morphed such that the program becomes a dippable program. A rule change is identified for the program. A dip is created for the program, wherein the dip incorporates the rule change. The dip is added to the dippable program, wherein the rule change is incorporated into the dippable program. In the instance in which the program is not in a form suitable for morphing, an interface may be added to encapsulate the program and allow the program to be compatible with Java objects.

16 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, Di
	20.	Docum	ient ID	): US 6	311194 B1							

File: USPT Oct 30, 2001 L9: Entry 20 of 34

US-PAT-NO: 6311194

DOCUMENT-IDENTIFIER: US 6311194 B1

TITLE: System and method for creating a semantic web and its applications in browsing, searching, profiling, personalization and advertising

DATE-ISSUED: October 30, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Sheth; Amit Bogart GA Avant; David Bogart GA Bertram; Clemens Athens GA

US-CL-CURRENT: 715/505

# ABSTRACT:

A system and method for creating a database of metadata (metabase) of a variety of digital media content, including TV and radio content delivered on Internet. This semantic-based method captures and enhances domain or subject specific metadata of digital media content, including the specific meaning and intended use of original content. To support semantics, a WorldModel is provided that includes specific domain knowledge, ontologies as well as a set of rules relevant to the original content. The metabase may also be dynamic in that it may track changes to the any variety of accessible content, including live and archival TV and radio

Record List Display Page 16 of 26

programming.

31 Claims, 16 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 10

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw. De

☐ 21. Document ID: US 6263498 B1

L9: Entry 21 of 34

File: USPT

Jul 17, 2001

US-PAT-NO: 6263498

DOCUMENT-IDENTIFIER: US 6263498 B1

TITLE: Method and apparatus for enabling server side distributed object

modification

DATE-ISSUED: July 17, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Alcorn; John William Austin TX Johnson; Karl David Round Rock TX

US-CL-CURRENT: <u>717/110;</u> <u>717/120</u>

## ABSTRACT:

A method and apparatus in a distributed data processing system for managing application modification in a distributed data processing system. The first portion of an application is morphed, wherein the first portion of the application becomes a dippable application. The first portion of an application containing <u>business rules</u> is placed on a server within the distributed data processing system, wherein the application is accessed by a client. A second portion of the application is placed on a client, wherein the second portion of the application provides access to the first portion of the application. A rule change is identified for the dippable application. A dip is created for the dippable application, wherein the dip incorporates the rule change. The dip is added to the dippable application, wherein the rule change is incorporated into the dippable application without requiring a change to the second portion of the application located on the client.

15 Claims, 10 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw, D

☐ 22. Document ID: US 6263341 B1

L9: Entry 22 of 34

File: USPT

Jul 17, 2001

Record List Display Page 17 of 26

US-PAT-NO: 6263341

DOCUMENT-IDENTIFIER: US 6263341 B1

TITLE: Information repository system and method including data objects and a

relationship object

DATE-ISSUED: July 17, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Smiley; Phillip L. Plano TX

US-CL-CURRENT: 707/103R; 707/102

### ABSTRACT:

A data model for an information repository (10) models data as objects (12), the relationships (14) or interdependencies between the data, their physical storage or access information (18) and  $\underline{\text{rules}}$  or methods of accessing the data (16).

25 Claims, 5 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWAC	Drawd De

☑ 23. Document ID: US 6249905 B1

L9: Entry 23 of 34 File: USPT Jun 19, 2001

US-PAT-NO: 6249905

DOCUMENT-IDENTIFIER: US 6249905 B1

TITLE: Computerized accounting system implemented in an object-oriented programming

environment

DATE-ISSUED: June 19, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Yoshida; Kazuki Tokyo . JP

Johnson; Ralph E. Champaign IL 61820

US-CL-CURRENT: 717/100; 705/1, 715/744, 715/835, 717/121

# ABSTRACT:

A computerized accounting system implemented using <u>object-oriented</u> programming techniques which permits construction of user-defined accounting or other business frameworks without modifying or recompiling the program code. A graphic user interface (GUI) is provided which enables a user to interact with the system to accomplish all required tasks, including designing and constructing the business

Record List Display Page 18 of 26

framework, as well as inputting and processing data using the designed framework. The system supports modular design of complex frameworks. It also allows the user to specify changes in <u>business rules</u> within a framework and tracks the changes over time.

25 Claims, 24 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 23

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	. Attachments	Claims	KWIC	Drawt De
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☑ 24. Document ID: US 6199047 B1

L9: Entry 24 of 34

File: USPT

Mar 6, 2001

US-PAT-NO: 6199047

DOCUMENT-IDENTIFIER: US 6199047 B1

TITLE: Apparatus and method for an event rating engine

DATE-ISSUED: March 6, 2001

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Dimino; James Arvad CO Smith; Mitchell W. Boulder CO Bones: David Boulder CO Bell; Brigham Boulder CO

US-CL-CURRENT: 705/10; 379/114.01

### ABSTRACT:

An event rating engine can be configured for a particular task and is logically decoupled from a rating database when a usage event is rated. The rating engine obtains rating <u>rules</u> from a rating database. The rating database includes rating <u>rules</u> that include rating <u>business rules</u> by usage type along with rate tables containing the current rate values. A rating domain server is coupled to the rating database interface to the rating <u>rules</u>. A rating editor coupled to the rating domain server and provides an interface to the rating domain server. At initialization, the rating engine downloads a set of rating <u>rules</u> from the rating database and interprets the rating <u>rules</u> to form an independent and autonomous rating process that can rate a usage event while being logically decoupled from the rating database during the rating process.

17 Claims, 21 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 19

										-		
Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Altachments	Claims	KWIC	Draw, De

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☑ 25. Document ID: US 6148290 A

L9: Entry 25 of 34 File: USPT Nov 14, 2000

US-PAT-NO: 6148290

DOCUMENT-IDENTIFIER: US 6148290 A

TITLE: Service contract for managing service systems

DATE-ISSUED: November 14, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Dan; Asit Pleasantville NY
Parr; Francis Nicholas Croton-on-Hudson NY

US-CL-CURRENT: 705/1; 705/8

### ABSTRACT:

A service contract system for providing a service includes a communication network, a plurality of parties coupled to the communication network and a service contract specifying unambiguous <u>rules</u> of interaction for the parties during transactions for the service. A method for managing service transactions between a plurality of parties coupled to a communication network, includes the steps ofjointly developing a service contract having unambiguous <u>rules</u> of interaction between the plurality of parties regarding a service, registering the service contract in each of the plurality of parties and generating, from the service contract, enforcer modules consistent with the <u>rules</u> of interaction for managing transactions of the service.

35 Claims, 9 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw, De

☐ 26. Document ID: US 6070165 A

L9: Entry 26 of 34 File: USPT May 30, 2000

US-PAT-NO: 6070165

DOCUMENT-IDENTIFIER: US 6070165 A

\*\* See image for Certificate of Correction \*\*

TITLE: Method for managing and accessing relational data in a relational cache

DATE-ISSUED: May 30, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Whitmore; Thomas John Newton, Auckland NZ

Record List Display Page 20 of 26

US-CL-CURRENT: 707/101

#### ABSTRACT:

For an object-based application being executed in a digital computing system a framework is provided for managing information retrieved from a structured database, such as a relational database. The processor is used to construct a single cohesive data structure, called a relational cache, that comprises all the row instances and that represents information retrieval from the structured database in a form suitable for use by one or more applications.

An application may have several of these relational caches active at any one time, some of which may represent separate user editing sessions, where each session may be saved or discarded independently. The framework ensures that only one copy of a row instance is in a given cache at any given time, even if several different queries return the same information from the database. Row instances within the relational cache may be modified by the application, where the row instances are marked as modified but not saved to the database at that time. The framework ensures all modified row instances within the cache are saved at one time, which are presented to the database as a single transaction, with individual rows ordered so as not to violate database referential integrity <u>rules</u>. Other properties of the framework are disclosed.

7 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full Title Citation Front Review Classification Date Reference Sequences Attachments	Clamb	KUUL   DI

☑ 27. Document ID: US 6067531 A

L9: Entry 27 of 34

File: USPT

May 23, 2000

US-PAT-NO: 6067531

DOCUMENT-IDENTIFIER: US 6067531 A

TITLE: Automated contract negotiator/generation system and method

DATE-ISSUED: May 23, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Hoyt; Daniel M. Manitou Springs CO
Lee; Robin M. Colorado Springs CO
Lickiss; Alan L. Colorado Springs CO

US-CL-CURRENT: 705/35

## ABSTRACT:

A contract system automates negotiation and generation of contract documents by managing the work flow in a contract approval process. Multiple users, coupled by a computer network, access a contract database containing multiple contracts with multiple contract components therein. The system manages communications and

Record List Display Page 21 of 26

security between a client system and the contract database. A client applet facilitates user input at the client system and assists in a standardization of legal phrasing and contract negotiation. The client applet enforces <u>business rules</u> to qualify a contract for expedited approval. Generalized templates are employed to enable rapid prototyping and creation of new contracts. A method governs the automated contract negotiation and generation process within a business organization with assistance from a graphical user interface.

49 Claims, 24 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 24

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOMC	Draw, De

☐ 28. Document ID: US 5978811 A

L9: Entry 28 of 34 File: USPT Nov 2, 1999

US-PAT-NO: 5978811

DOCUMENT-IDENTIFIER: US 5978811 A

TITLE: Information repository system and method for modeling data

DATE-ISSUED: November 2, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Smiley; Phillip L. Plano TX

US-CL-CURRENT: 707/103R; 705/1, 707/1, 707/100, 707/102, 707/104.1

ABSTRACT:

A data model for an information repository (10) models data as objects (12), the relationships (14) or interdependencies between the data, their physical storage or access information (18) and rules or methods of accessing the data (16).

11 Claims, 5 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences Aftachments	Claims	KWIC	Draw, De

☐ 29. Document ID: US 5920870 A

L9: Entry 29 of 34 File: USPT Jul 6, 1999

US-PAT-NO: 5920870

DOCUMENT-IDENTIFIER: US 5920870 A

TITLE: Multi-layer abstraction bucket mechanism

Record List Display Page 22 of 26

DATE-ISSUED: July 6, 1999

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Briscoe; Roy A. Haverhill MA
Burke; Robert J. Northboro MA
Hanson; Thomas E. Ashland MA
Holland; Paul Natick MA
Moriarty; John M. Nashua NH

US-CL-CURRENT: 707/103R; 707/104.1

### ABSTRACT:

A multi-layer abstraction bucket mechanism connected between applications programs and at least one data source and providing to the users transformations of data and the results of processes performed on the data. The multi-layer abstraction bucket mechanism includes hierarchically connected abstraction layers, each including a methods object for storing methods for performing operations on data received from a data bucket of a hierarchically next lower abstraction layer, a data operation object for selecting a method to be executed by the method object, a data bucket for storing the results of an executed method, and a map for storing information for constructing the data bucket and for relating requests to methods residing in the methods object. The mechanism includes a data extraction layer and an abstraction layer. At least one abstraction layer is a data transformation layer while others include a data processing layer and a <u>rules</u> transformation layer for performing the rule based decision operations. At least one abstraction layer is an encaching layer while others are data transitory.

13 Claims, 12 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 12

	Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequençes	Attachments	Claims	KWIC	Draw, De
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☑ 30. Document ID: US 5870719 A

L9: Entry 30 of 34 File: USPT Feb 9, 1999

US-PAT-NO: 5870719

DOCUMENT-IDENTIFIER: US 5870719 A

TITLE: Platform-independent, usage-independent, and access-independent distributed

quote configuraton system

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Maritzen; L.M. Milpitas CA Dimaandal; Rolando D. Milpitas CA Giannella; Julia Saratoga CA Record List Display Page 23 of 26

Arregui; Raul Pacifica CA Moss; Marc Fremont CA

US-CL-CURRENT: 705/26; 700/90, 705/35, 709/203, 709/217, 709/219, 709/230, 715/733,

<u>715/751</u>

### ABSTRACT:

A platform-independent, usage-independent, location-independent quote configuration system is described. The present invention, operating in a computer network, is a quote configurator comprising, 1) a client module, the client module having a platform-independent user interface for receiving quote input and command selections from a user, the quote input and command selections including product selection and selection of information indicative of <u>business rules</u>, and 2) a server coupled to the client module across the network, the server having access to quote data and <u>business rules</u>, the server including a platform-independent server interface configured to receive the quote input and command selections from the client module, the server validating the quote input based on the quote data and the business rules.

24 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw, De
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☐ 31. Document ID: US 5754857 A

L9: Entry 31 of 34

File: USPT

May 19, 1998

US-PAT-NO: 5754857

DOCUMENT-IDENTIFIER: US 5754857 A

TITLE: Distributed asynchronous workflow on the net

DATE-ISSUED: May 19, 1998

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Gadol; Steven D. Portola Valley CA

US-CL-CURRENT: 709/203; 709/226

## ABSTRACT:

A system and method for automating workflow by distributing the tasks required for the execution of said workflow over servers and clients connected on a network. The disclosed system and method allow the stages of the workflow to be performed asynchronously, meaning that, once a workflow initiated by a user has been initiated by a database server, the stages of the workflow can be executed on respective network clients without further interaction with the server (i.e., without requiring a stateful connection between the clients and servers). This is accomplished through the use of a workflow courier that embodies all programs

Record List Display Page 24 of 26

(encompassing <u>rules</u> governing the execution of the workflow) and forms needed by clients to complete stages of the workflow. The workflow courier also stores workflow state information that indicates which stages of the workflow have been completed. The executable programs are written in the platform-independent Java programming language and are therefore executable on any computer that has an installed Java browser. After each stage is executed, the client executing that stage updates the workflow courier and transmits the updated workflow courier to a client having an associated user who is authorized to perform the next step in the workflow. The updated state information indicates to the recipient of the workflow which stages remain to be completed.

42 Claims, 7 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KOAC	Draw, De

Apr 28, 1998

☑ 32. Document ID: US 5745901 A

L9: Entry 32 of 34 File: USPT

US-PAT-NO: 5745901

DOCUMENT-IDENTIFIER: US 5745901 A

TITLE: Workflow initiated by graphical symbols

DATE-ISSUED: April 28, 1998

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Entner; Diane T. Fairfax VA
Wormington; Phyllis J. Vienna VA
Lin; Chih Ru Fairfax VA

US-CL-CURRENT: <u>707/103R</u>; <u>704/1</u>, <u>705/5</u>, <u>707/10</u>, <u>707/102</u>

### ABSTRACT:

A method for workflow processing of objects stored in the memory of a computer system in accordance with the invention includes storing an object, which is to be processed, in the memory of a computer system; reading the object, which is to be processed, from the memory, and adding a graphical symbol to the object; processing the graphical symbol with middleware; and in response to the processing of the graphical symbol with the middleware initiating actions to process the object in accordance with <u>business rules</u>; and wherein the graphical symbol is an object which, when interpreted by the middleware into a computer readable format, initiates an action resulting in the use of at least one tool to process the object with each tool performing a different operation on the object or at least one additional object event or changing at least one attribute of the object, based on <u>business rules</u>, with the rules being comprised of at least one of the set of controls or procedures under which a computer implemented business process is conducted.

24 Claims, 3 Drawing figures

Record List Display Page 25 of 26

Exemplary Claim Number: 1
Number of Drawing Sheets: 3

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw. De

☐ 33. Document ID: US 5434791 A

L9: Entry 33 of 34

File: USPT

Jul 18, 1995

US-PAT-NO: 5434791

DOCUMENT-IDENTIFIER: US 5434791 A

TITLE: Product structure management

DATE-ISSUED: July 18, 1995

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Koko; Boma R.
Stewart; Hugh

Westminster

Cambridge

CA

GB2

US-CL-CURRENT: 700/97

#### ABSTRACT:

An <u>object-oriented</u> method of using a computer to store a model of an imprecise structure of a product. The product's components are modeled as items and item revisions. Each item and item revision has a view, which may have view revisions. The method links view objects and view revision objects with occurrence references to each other and to view objects and view revision objects of other components. Context-specific view revisions are modeled as appearances. A user's request for a display of a product is received and used to invoke configuration <u>rules</u> that determine which view revisions) are part of the product. The correct view revisions are assembled with their occurrences and appearances.

23 Claims, 8 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Seguences	Altachments	Claims	KMC	Drawt De

☐ 34. Document ID: US 5404502 A

L9: Entry 34 of 34

File: USPT

Apr 4, 1995

US-PAT-NO: 5404502

DOCUMENT-IDENTIFIER: US 5404502 A

\*\* See image for Certificate of Correction \*\*

TITLE: Error-detection in database update processes

Record List Display Page 26 of 26

DATE-ISSUED: April 4, 1995

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Warner; Wes Unionville CA
Hope; Greg North Vancouver CA
Oeuvray; Paul West Vancouver CA

US-CL-CURRENT: <u>714/20</u>; <u>707/202</u>

#### ABSTRACT:

A technique for integrity error detection in a temporal transaction oriented database system. The database system has records and processing rules. Each record has an effective time. Each processing rule has a range of effective times. The record types include transaction records, master records, shadow master records and snapshot records. Each transaction record or snapshot record is related to one master record and each master record may have a plurality of related transaction and snapshot records. Each snapshot record is a copy of its related master record at a given effective time. On the insertion of one or more backdated transaction records or reversal of one or more existing transaction records the master record is recalculated by replaying from a prior snapshot forward, all processing rules and transaction records, having appropriate effective times. A shadow master record is recalculated by simultaneously repeating each of the steps of the replay on the shadow master record, but in this case ignoring any new backdated transactions and including any newly reversed transaction records. The comparison of the shadow master record after replay and the value of the master record before replay indicates the presence or absence of an integrity error.

10 Claims, 8 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 8

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	килс	Draw, D	
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